

REMARKS

Upon entry of this Amendment, Claims 1, 3-14, 22 and 25-30 will be pending in the application. Non-elected Claims 15-19 have been cancelled with the understanding that Applicant may subsequently present such claims in a continuation application.

Amended independent Claim 1 recites a longitudinal recording head for use with a magnetic recording medium, the longitudinal recording head comprising: first and second poles defining a non-uniform gap comprising a cavity, wherein portions of the first and second poles contact each other at an air bearing surface of the recording head and the non-uniform gap has a length that is not constant along a dimension across a track width of the recording head or along a dimension perpendicular to an air bearing surface of the recording head; and means for concentrating magnetic flux between the first and second poles in the vicinity of the gap to produce a localized magnetic field in the magnetic storage medium.

Amended independent Claim 8 recites a longitudinal recording head for use with a magnetic recording medium, the longitudinal recording head comprising: first and second poles; and a non-uniform gap defined by the first and second poles, wherein portions of the first and second poles contact each other adjacent an air bearing surface of the recording head and the non-uniform gap has a length that is not constant along a dimension across a track width of the recording head or along a dimension perpendicular to an air bearing surface of the recording head.

Basis for the amended language of Claims 1 and 8 is provided in the specification, for example, at page 6, lines 10-13 and lines 22-28, page 7, lines 13-27 and Figs. 4, 7a, 7b, 8a and 8b.

Claim 1 has been amended to remove the term "hollow" in order to more clearly recite that the cavity may be hollow or filled with any suitable material such as a non-magnetic material which would effectively make the cavity magnetically hollow. Newly added dependent Claim 26, which depends from Claim 1, recites that the cavity is hollow.

The Examiner's indication that Claims 4-6, 10-13 and 24 would be allowable if rewritten in independent form is acknowledged with appreciation. By the present Amendment, Claims 4, 5, 11 and 12 have substantially been rewritten in independent form as Claims 27, 28, 29 and 30, respectively, except the word "hollow" has been omitted from

Claims 27 and 28. In view of the Examiner's indication that Claims 4, 5, 11 and 12 would be allowable if rewritten in independent form, it is submitted that Claims 27-30 are patentable over the prior art of record.

Claims 1, 8, 9, 20, 22, 23 and 25 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Wenner '153. Claims 7 and 14 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Wenner '153. According to the Office Action, Wenner '153 shows a longitudinal recording head including first and second poles (17) defining a non-uniform gap (21) with a hollow cavity laser etched therein and means for concentrating magnetic flux between the first and second poles in the vicinity of the gap when magnetic flux is induced by the windings 18. Applicants submit that independent Claims 1 and 8 are patentable over Wenner '153.

Wenner '153 does not teach or suggest the presently claimed non-uniform gap which has a length that is not constant along a dimension across a track width of the recording head or along a dimension perpendicular to an air bearing surface of the recording head. Instead, as shown in Figs. 2-4 of Wenner '153, the gap (21, 31) has a rectangular shape with straight sides, making the gap uniform in both a direction across a track width of the head and a direction perpendicular to the air bearing surface of the recording head. Since Wenner '183 does not teach or suggest the presently claimed non-uniform gap configuration, it is submitted that Claims 1 and 8, and the claims that depend therefrom, are patentable over the prior art of record.

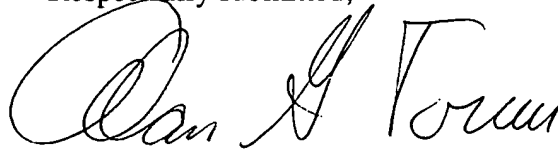
Claims 1, 3, 21 and 22 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Tiemann '918. According to the Office Action, Tiemann '918 shows a longitudinal recording head including first and second poles (52, 53) defining a curved non-uniform gap 51 with a hollow curved cavity formed by removing material in the pole 52, and means for concentrating magnetic flux between the first and second poles in the vicinity of the gap.

Claim 1, as amended, includes the recitation that portions of the first and second poles contact each other at an air bearing surface of the recording head. As shown in Figs. 4 and 5 of Tiemann '918, no such contact of the recording poles is taught or suggested. Accordingly, Claim 1, and the claims that depend therefrom, are patentable over Tiemann '918 and the other prior art of record.

In view of the foregoing amendments and remarks, it is submitted that Claims 1, 3-14, 22 and 25-30 are patentable over the prior art of record. Accordingly, an early Notice of Allowance of this application is respectfully requested.

In the event that any outstanding matters remain in connection with this application, the Examiner is invited to telephone the undersigned at (412) 263-4340 to discuss such matters.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Alan G. Towner". The signature is fluid and cursive, with the first name "Alan" being the most prominent.

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